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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,302	04/06/2001	Oswaldo da Costa e Silva	16313-0029	6582

29052 7590 04/25/2002

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ATLANTA, GA 30309

EXAMINER

COLLINS, CYNTHIA E

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 04/25/2002

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/828,302	DA COSTA E SILVA ET AL.	
	Examiner	Art Unit	
	Cynthia Collins	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-40 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-12 and 17-26, drawn to a transgenic plant cell, a seed, an isolated PHSRP coding nucleic acid, a recombinant expression vector, and a method of producing a transgenic plant, classified in class 536, subclass 23.6, for example.
- II. Claim 13, drawn to an agricultural product, classified in class 426, subclass 623, for example.
- III. Claims 14-16, drawn to an isolated PHSRP protein, classified in class 530, subclass 350, for example.
- IV. Claims 27-33 and 35, drawn to a method of increasing stress tolerance of a plant by modifying the expression of PHSRP in a nontransgenic plant, classified in class 800, subclass 265, for example, for example.
- V. Claims 27-33, and 36-39, drawn to a method of increasing stress tolerance of a plant by modifying the expression of PHSRP in a transgenic plant, classified in class 800, subclass 279, for example, for example.
- VI. Claim 27-32, 34 and 35, drawn to a method of decreasing stress tolerance of a plant by modifying the expression of PHSRP in a nontransgenic plant, classified in class 800, subclass 276, for example.
- VII. Claim 27-32, 34, and 36-39, drawn to a method of decreasing stress tolerance of a plant by modifying the expression of PHSRP in a transgenic plant, classified in class 800, subclass 288, for example.

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- VIII. Claims 27-32, 34, 35 and 40, drawn to a method of decreasing stress tolerance in a plant by inhibiting the expression of PHSRP in a nontransgenic plant by administration of an antisense molecule, classified in class 800, subclass 286, for example.
- IX. Claims 27-32, 34, 36 and 40, drawn to a method of decreasing stress tolerance in a plant by inhibiting the expression of PHSRP in a transgenic plant by administration of an antisense molecule, classified in class 800, subclass 286, for example.

For inventions I-IX above, restriction to one of inventions (A)-(E) is also required under 35 USC 121. Therefore, upon election of any of Inventions I-IX, one of inventions (A)-(E) must also be elected.

- (A) PP2A-2, SEQ ID NOS:6 and 11
- (B) PP2A-3, SEQ ID NOS:7 and 12
- (C) PP2A-4, SEQ ID NOS:8 and 13
- (D) PP2C-1, SEQ ID NOS:9 and 14
- (E) PP2C-2, SEQ ID NOS:10 and 15

The inventions are distinct, each from the other because of the following reasons:

Inventions (A)-(E) are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different

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functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions represent structurally different polynucleotides and the polypeptides they encode.

Therefore, where structural identity is required, such as for expression or hybridization, the different sequences have different effects.

Inventions I-IX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, different functions and different effects.

The transgenic plant cell, seed, and isolated PHSRP coding nucleic acid of Invention I, the agricultural product of Invention II, and the isolated PHSRP protein of Invention III are biologically, chemically, and structurally distinct from one another, and can be used in different methods, such as a hybridization method for the nucleic acid, an animal feeding method for the agricultural product, and an immunoassay method for the protein.

The method of Invention I requires transformation of a plant cell and regeneration of a transgenic plant resulting in the production of a transgenic plant, which is not required by the methods of Inventions IV-IX. The method of Invention IV requires modifying the expression of PHSRP in a *nontransgenic* plant resulting in *increased* stress tolerance of the plant, which is not required by the methods of Inventions I or V-IX. The method of Invention V requires modifying the expression of PHSRP in a *transgenic* plant resulting in *increased* stress tolerance of the plant, which is not required by the methods of Inventions I, IV and VI-IX. The method of Invention VI requires modifying the expression of PHSRP in a *nontransgenic* plant resulting in *decreased* stress tolerance in the plant, which is not required by the methods of Inventions I, IV-V and VII-

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IX. The method of Invention VII requires modifying the expression of PHSRP in a *transgenic* plant resulting in *decreased* stress tolerance in the plant, which is not required by the methods of Inventions I, IV-VI and VIII-IX. The method of Invention VIII requires inhibiting the expression of PHSRP in a *nontransgenic* plant by administration of an antisense molecule resulting in decreased stress tolerance in the plant, which is not required by the methods of Inventions I, IV-VII and IX. The method of Invention IX requires inhibiting the expression of PHSRP in a *transgenic* plant by administration of an antisense molecule resulting in decreased stress tolerance in the plant, which is not required by the methods of Inventions I and IV-VIII.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, their recognized divergent subject matter, and the requirement for different areas of search, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Remarks

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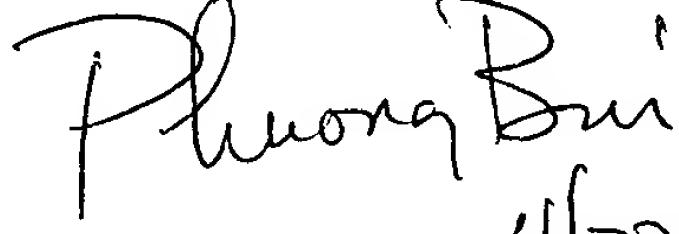
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Collins whose telephone number is (703) 605-1210.

The examiner can normally be reached on Monday-Friday 8:45 AM -5:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on (703) 306-3218. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

CC
April 22, 2002


PHUONG T. BUI
PRIMARY EXAMINER
4/22/02